

REMARKS/ARGUMENTS

Favorable reconsideration of this application is respectfully requested.

Claims 1-5 are present in this application, and stand rejected under 35 USC §102(b) over U.S. Patent No. 5,162,695 (Shimona et al.). Claims 1, 4 and 5 are amended in this response.

As explained in the previous response, the present invention relates to a cathode-ray tube apparatus comprising an electron gun assembly with an electron beam generating section, a deflection yoke and velocity modulation coils for modulating the scan velocity of the electron beams generated from the electron beam generating section, wherein at least one of the electrodes of the gun assembly is constructed by bringing at least first and second electrode members arranged in the direction of passing of the electron beams in physical contact with each other, and the first electrode member has a projecting portion on its end face in physical contact with the second electrode member. The velocity modulation coils are provided as a separate body from the deflection yoke, are outside the electron gun assembly, and modulate the scan velocities of the electron beams in synchronism with deflection magnetic fields generated from a deflection yoke.

The magnetic field generated by the velocity modulation coils can be made to effectively act on the electron beams by intensifying the magnetic field. Also, when the magnetic field is intensified, eddy current is generated in the electrodes inside the electron gun assembly, and the magnetic field cannot act effectively on the electron beams. Thus, to prevent such a case, the present invention is configured so that the projecting portion of the first electrode member is in physical contact with the second electrode member. With such a structure, magnetic field generated by the velocity modulation coils can easily permeate through the gaps between the electrode members, and thus, the magnetic field can act

effectively on the electron beams and a satisfactory velocity modulation effect can be obtained.

Turning to the §102 rejection, the present invention recited in claim 1 is clearly not disclosed in Shimona et al. First, claim 1 recites velocity modulation coils that are provided as a separate body from a deflection yoke. There is no velocity modulation coils disclosed in Shimona et al. Even if the deflection yoke 7 is incorrectly viewed as a velocity modulation coil, claim 1 recites both a velocity modulation coil and a deflection yoke, and that the velocity modulation coils modulate scan velocities of the electron beams in synchronism with deflection magnetic fields generated by the deflection yoke. A gun assembly having only a deflection yoke cannot be found to disclose the gun assembly of claim 1. There is simply no manner in which Shimona et al. can support a rejection of claim 1, and the rejection of claim 1 must be withdrawn for this reason alone.

The rejection of claim 1 must also be withdrawn since there are no electrodes in Shimona et al. where at least one of the electrodes of the electron gun assembly is constructed by bringing at least first and second electrode members arranged in a direction of passing of the electron beams in physical contact with each other, and the first electrode member has a projecting portion on an end face thereof, which is to be in physical contact with the second electrode member disposed adjacent to the first electrode member. The discussion of this element of claim 1 in the Office Action focuses on the relationship between the fifth grid G5 and the sixth grid G6, shown in Figs. 4 and 5 of Shimona et al. According to lines 13-14 of column 6, approximately the same level of voltage (5-10kV) is applied to each of G5 and G6. According to lines 49-53 of column 6, a quadrupole lens is formed between G5 and G6, and the quadrupole lens diverges the electron beams more in the vertical direction than in the horizontal direction. The electrode plates provided in G5 and G6 are for forming an electric field that is asymmetrical in the horizontal direction and in the vertical direction (in other

words, a quadrupole lens). In other words, it is necessary to apply different voltages to the electrodes of grids G5 and G6, in order to form an electron lens between them. Thus, it is impossible for the grids to be in physical contact with each other, and thus cannot be considered the at least one electrode recited in claim 1.

The Office Action also refers to the relationship between G5, G51 and G6, making reference to Figs. 11-12. However, lines 1-3 of column 10 in Shimona et al. state that different voltages are applied to the G5, G51 and G6 electrodes. The electrodes G5, G51 and G6 cannot be in physical contact with each other, and also cannot be considered the at least one electrode of claim 1.

Shimona et al. clearly does not disclose or suggest the gun assembly of claim 1, as it lacks both the velocity modulation coils and the at least one electrode. Withdrawal of the rejection of claim 1 is respectfully requested. As the present amendment is believed to place the application in condition for allowance, entry of the amendment is proper as described in MPEP §714.12.

It is respectfully submitted that claims 1-5 are in condition for allowance, and a favorable decision to that effect is respectfully requested.

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